

ESTOS ECSTA for Aastra 800

Version: 3.0.0.81

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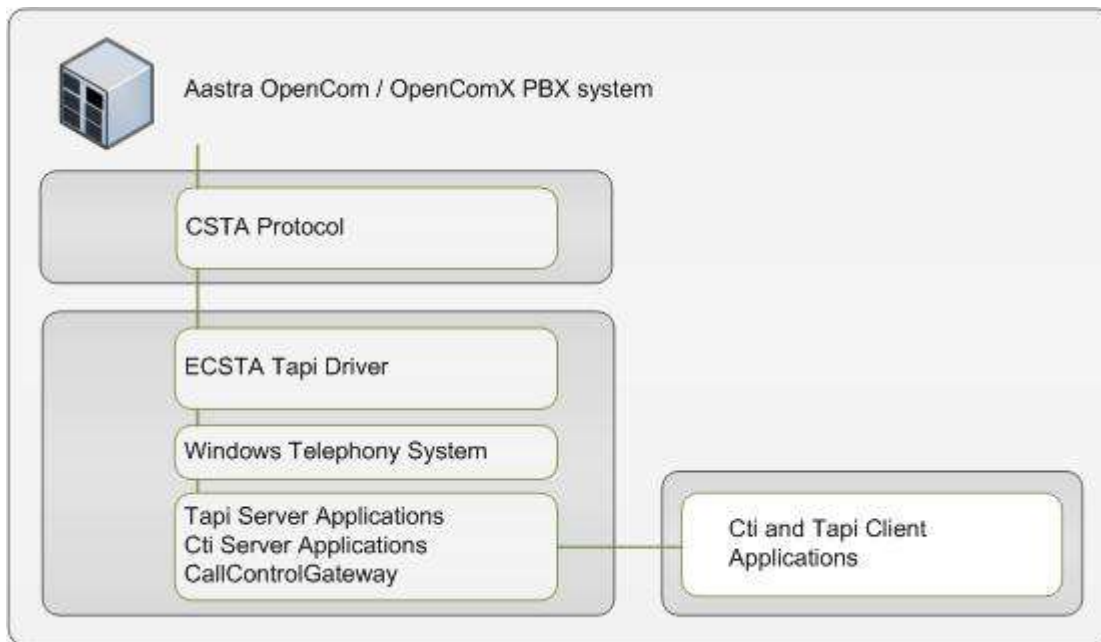
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1 Introduction

ESTOS ECSTA for Aastra 800 makes available several Telephony Service Providers for Microsoft Tapi 2.1 (also 2.2 and 3.0). These Tapi drivers produce a central communication between a PC (CTI Server) and the telephone system. On this CTI server all devices on the telephone system are available as Tapi lines.

All ESTOS ECSTA for Aastra 800 drivers use the efficient interface CSTA in order to communicate with the telephone system.

For the installation and management of the driver see driver Management .



Supported telephone systems

Driver	PBX
ECSTA for Aastra 800	OpenCom 130
ECSTA for Aastra 800	OpenCom 150
ECSTA for Aastra 800	OpenCom 150rack
ECSTA for Aastra 800	OpenCom X320
ECSTA for Aastra 800	OpenCom X320rack
ECSTA for Aastra 800	OpenCom 510
ECSTA for Aastra 800	OpenCom 800
ECSTA for Aastra 800	Aastra 800

Using in the network

After installing the driver, you may use all configured line devices on the server as Tapi lines. If you are

using a server based CTI Software, you may install it now. To have the Tapi devices available on all workstations, the Tapi driver must be distributed in the network. There are the following possibilities:

1. **ESTOS ECSTA for Aastra 800_SERVER**

The ESTOS ECSTA for Aastra 800_SERVER is a server CTI software which can distribute the Tapi driver to all network workstations. At the same time, work groups, domains, ActiveDirectory and terminal server are supported. Furthermore, a Busy Lamp field and optionally a complete CTI solution can be made available to you. Find out more information under ESTOS ECSTA for Aastra 800_SERVER and ESTOS ECSTA for Aastra 800_PROCALL.

2. **Windows Telephony Server**

The Windows Telephony Server is a component of Windows NT Server, Windows 2000 Server and Windows Server 2003. You will need a Domain. The Service is limited to Domain users.

2 Driver Management

Installation

The driver is installed on the system with the Windows Installer (msi) package. If the set-up package contains several drivers, you can select which drivers should be installed during the set-up.

Driver instance

The driver can be used to connect one or several phone systems. For this purpose one or several driver instances are registered in Windows Tapi System.

Register at Tapi System

During the installation, an instance from the selected driver is already registered at the Tapi system. Thereby, you select the necessary data in a Wizard in order to connect the driver with the telephone system.

Configuration of Driver instance

The configuration of the driver instances takes place either over *Telephone and Modem option* in the Control Panel or over the standard program *Advanced Telephone Driver option* that can be found in the Control Panel or in the Start Menu.

Add further driver instances

If you want to connect the computer with a further telephone system, you must add a further instance of the driver to the Tapi system. This takes place with Help in the standard program *Advanced Telephone Driver options* that can be found in the Control Panel or in the Start Menu.

Updates

To install an Update start the Windows Installer Package (msi).

If a driver instance is configured, this is deleted during the Update and is automatically added again after the Update is completed. If several driver instances are configured, the computer must be restarted after the Update.

Deinstallation

The Deinstallation takes place via the Windows Software Administration. In the Deinstallation, all instances of the driver are removed from the Tapi system and the software uninstalled.

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When setting up the driver, follow these steps:

1. **Check network connection**
If the connection is established using TCP/IP, check if you can reach the PBX system (ping hostname)
2. **Test CSTA License in the telephone system**
An OpenCSTA 100 license is required in the telephone system. This license can be activated as a demo license in the system.
3. **Test device ID in the telephone system**
If several telephones have the same phone number, then this device ID must be obtained. See Configure Telephone system.
4. **Driver installation**
See also Settings

3.1 General Settings

The connection between PBX and Server can be established using a TCP/IP connection to the LAN interface of the PBX.

Connection using a network (TCP/IP)

Input here the host name or the IP address of your telephone system. The standard TCP Port for the CSTA connection is 7001.

With the Button 'Find...' you can localize the telephone system in the network.

You may enter advanced TCP settings with the button '...'. The connection may be established using a SOCKS 5 firewall without authentication.

User name and password

To register at the telephone system, you employ the User **Administrator**.

Input the password

3.2 Advanced Settings

Readout line names

If this option is active, the names of the telephones from the telephone system are requested.

Line Access Codes:

This is the range of numbers where internal telephony devices are present.

Phone number format:

The phone number registered from the driver at the application can be changed with rules. Moreover, you can also change phone numbers sent by the PC to the telephone system. See Phone number formatting.

Snapshot for active calls

The driver can validate existing calls. This prevents that calls are displayed on the PC that do no more exist in the PBX system.

Enter a time interval in seconds.

The higher this value the longer it takes for the driver to detect a hanging call. The lower this value the higher is the load on the PBX.

Retry MonitorStart

In case the driver cannot start the monitoring of an extension for example because the extension is not connected to the PBX, the driver will retry the monitoring at regular intervals.

Enter a time interval in seconds.

3.3 TAPI Lines

Enter the Lines that the driver should make available through TAPI. The numbers are the internal Callnumbers of your devices, the names are used to display the TAPI lines. The device ID is necessary, in case several telephones have the same number.

Phone Number Format

The lines can be optionally as an internal phone number, for example 123 or canonical, for example You should use canonical phone numbers if you use several instances of Tapi driver and thus switch on several telephone systems at the same time. A canonical phone number consists as follows:

+Country code (prefix) Local prefix-extension

In the dialogue Location You can configure the country code, area code and local dialing prefix.

Load Lines from PBX

The available lines are determined automatically from the telephone system.

All phone numbers from the phone system that can be operated from the PC are selected. If several phones have the same phone number, possibly only one of these phones is selected. All other phones must be configured manually.

Manual addition of a line

Give the internal phone number of the telephone. If necessary, give the device ID of the telephone. Optionally a name can also be given.

Device ID

The device ID serves to identify the telephone clearly. This is required if several telephones have the same phone number.

Import text

You can import a list of lines from a text file. The file must begin every line with the phone number. Optionally, the name can also be split with a comma.

Export text

You may export the actual line configuration to a text file.

Attention

After the installation of the driver it may be necessary to restart the computer.

3.4 Configure telephone system

Several telephones with the identical phone number

The telephone system supports the parallel connection of several telephones with identical phone numbers. Control of single telephones must be distinguishable. A device ID is required for this. If no device IDs are configured, only one of the telephones with an identical phone number can be controlled.

Device ID

The Device ID configuration is located in the PBX settings under Configurator - Telephony - Extended - Device ID.

All multiple occurring phone numbers must obtain a device-ID. Only then are they usable from the PC. Example of sensible device ID assignment: The call number 33 is assigned to three terminals. Terminal 1 receives the device ID 3301, terminal 2 the ID 3302 and terminal 3 the ID 3303.

Ph.No.	Description	Type (configured)	Port	Device ID
33		Aastra 6773ip (OP73IP)	0030420CEE8E	3301
33		Aastra 6775ip (OP75IP)	0030420CEDC5	3302

CSTA Licenses

An OpenCSTA 100 license is required in the telephone system. This license can be activated as a demo license in the system.

The license settings in the configuration of the telephone system can be found under configurator - System - Licenses.

4 Location Settings

The phone numbers of the telephone system are defined in the Location Settings

Phone Number Range

Indicate here which internal phone numbers exist in the phone system. This information is used to determine the available lines from the phone system.

Location

Indicate here which international phone numbers precede the internal extension numbers.

Example: With location information '49(89)1234' the extension '100' is formatted as '49(89)1234-100'.

Phone Number Format

The phone number registered from the driver at the application can be changed with rules. Moreover, you can also change phone numbers sent by the PC to the telephone system. See Phone number formatting.

5 Phone Number Format

You may enter rules for formatting the phone numbers.

The phone numbers that are reported from the PBX system to the PC and the numbers that are send from the PC to the PBX system may be modified with a Search and Replace function.

The phone numbers that are sent from the Tapi Application to the PBX (make call) may be modified as well.

Each line in the list contains an option if direct text compare or a regular expression is used.

The Search and Replace function uses regular expressions. If a search pattern matches, the result from replace with will be used as output. If the search pattern does not match, the original number will be reported unchanged. The entries in the list are processed one after each other. If one match is found the remaining entries will be ignored.

There are three categories:

- **Incoming**
This section is for phone number from incoming calls that are reported from the PBX system to the PC.
- **Outgoing**
This section is for phone number from outgoing calls that are reported from the PBX system to the PC.
- **PC Dialling**
This section is for phone numbers that are dialed on the PC and send to the PBX system

Search for:

Enter the regular expression that will be used to find a phone number.

Hint: The caret (^) can be found on the upper left key of a keyboard with German layout.

An overview of allowed expressions:

Character	Description
^	The beginning of the search string (phone number). The expression "^0" matches '0' only at the beginning of the search string.
^	The caret (^) immediately following the left-bracket ([) has a different meaning. It is used to exclude the remaining characters within brackets from matching the target string. The expression "[^0-8]" indicates that the target character should not be 0
\$	The dollar sign (\$) will match the end of the string. The expression "152\$" will match the sub-string "152" only if it is at the end of the string.
	The alternation character () allows either expression on its side to match the target string. The expression "1 2" will match '1' as well as '2'.
.	The dot (.) allows any character (or any number).
*	The asterix (*) indicates that the character to the left of the asterix in the expression should match 0 or more times.
+	The plus (+) is similar to asterix but there should be at least one match of the character to the left of the + sign in the expression.

?	The question mark (?) matches the character to its left 0 or 1 times.
()	The parenthesis affects the order of pattern evaluation and also serves as a tagged expression that can be used when replacing the matched sub-string with another expression.
[]	The corner brackets ([and]) indicates the amount of signs that are permitted at this point.

Replace with:

Enter the expression that defines how the number is to be formatted.

\1 represents the first matched expression enclosed by parentheses '(' ')' from the *search pattern* field.

\2 the second ...

Check:

You may check your expressions right here by entering a phone number in the indicate field. The resulting output will be displayed. If the expression from the search pattern is not found, the phone number will be send to the output without modification.

Examples:

Result	Search for	Replace with
Remove a leading 0 from the phone number	^0(.*)	\1
Replace a leading 80 at the beginning of the phone number by a 0	^80(.*)	0\1
Remove a private pin number that may be identified by a 50 followed by a 3 digit pin.	^50[0-9][0-9][0-9](.*)	\1
Suppress all internal numbers having a 3-digit extension.	^[0-9][0-9][0-9]\$	
Add an access code (leading 0) to all numbers with more than 3 digits (e.g. all external numbers).	^([0-9][0-9][0-9].+)	0\1
Add the PBX system root number (03012345) to all internal numbers (with 1 to 3 digits)	^([0-9][0-9]?[0-9]?)\$	03012345\1
Adding an area code to all numbers not beginning with 0 and containing at least 4 digits (thus not internal).	^([0-9][0-9][0-9][0-9].*)	08151\1

See also location.

6 Licenses

The driver may be used without license for 45 days using 100 lines. After the trial period is expired the lines are automatically removed. You may purchase licenses to operate the driver. To purchase licenses please contact your dealer.

All driver instances share the same license. You may use the licenses in any combination on different PBX systems as long as the drivers are all installed on the same computer.

This driver needs licenses for Version 3.0.

To be able to use Upgrade licenses for Version 3.0, you must likewise input the licenses for Version 2.0.

7 FAQ

Q0069: **I just installed a Tapi driver, but the connections are not yet available. I cannot select the new lines using the windows phone dialer. What can I do?**

If connections are not available after a tapi driver being installed, you have to restart your PC. The reason for that is another software using the Windows Tapi system (probably the Internet Auto Connection Manager).

Q0107: **I get the message: You do not have permission to change the settings. Please contact your Administrator.**

Reason: The user does not have the required rights to run the setup. Solution: Install the driver as Administrator.

8 Software requirements

The ESTOS ECSTA for Aastra 800 can be installed on all Windows Systems that supports Microsoft TAPI 2.0 or higher. The driver was successfully tested with

- Windows 2000 Professional, Server und Advanced Server
- Windows XP Home Edition, Professional
- Windows Server 2003
- Windows Server 2003 x64 Edition
- Windows XP x64 Edition
- Windows Vista
- Windows Vista x64 Edition
- Windows Server 2008
- Windows Server 2008 x64 Edition
- Windows Server 2008 R2
- Windows Server 2008 R2 x64 Edition
- Windows 7
- Windows 7 x64 Edition

Microsoft Installer Version 2.0 is required to run the setup.

9 Info about ESTOS ECSTA for Aastra 800

ESTOS ECSTA for Aastra 800 is a product of ESTOS GmbH.

Product Updates can be found under <http://www.estos.de>

Frequently asked questions and answers, as well as support, can be found under [http: //www.estos.de](http://www.estos.de)

Support per E-Mail can be found under support@estos.de